REMARKS

These remarks and the accompanying amendments are responsive to the Office Action made final and dated June 13, 2007 (hereinafter referred to as the "Office Action"). This response is being filed two months from the mailing date of that final Office Action. At the time of the last examination, Claims 1, 2, 4-6, 8, 18-20, 22, 23, 33-37, 47, 49 and 53-85 pending. All the claims are allowed, except independent Claims 62 and 78, which are rejected, and Claims 1, 63 and 79, which are objected to.

Section 7 of the Office Action objects to Claim 1, which is now amended herein to address the specified informality.

Section 9 rejects each of independent Claims 62 and 78 under 35 U.S.C. 103(a) as being unpatentable over United States patent number 6,304,624 issued to Seki et al. (the patent hereinafter referred to as "Seki") in view of United States patent number 6,295,311 issued to Sun (the patent hereinafter referred to as "Sun"). The applicants respectfully traverse.

Claim 78 recites "weighting and averaging pilot signals using a plurality of weight sequences to obtain a plurality of channel estimation values" (in Claim 78). The Office Action asserts that this feature is disclosed in column 1, lines 45-55, column 2, lines 19-43 and column 16, lines 51-65 of Seki, and that the weight factors Wa and Wb of Figure 14 of Seki correspond to "a plurality of weight sequences" of claim 78.

According to column 16, lines 51-65 and Figure 14 of Seki, it seems that the Examiner thinks that the estimated values ξ1^ and ξd1^ correspond to "a plurality of channel estimation values" of claim 78. However, in Seki, the estimated values ξ1^ and ξd1^ are multiplied by the weight factors Wa and Wb at the multipliers 7A-2 and 7A-3. That is, the plurality of channel

estimation values (the estimated values ξ1^ and ξd1^) have been already obtained before the weight sequences (the weight factors Wa and Wb) are used.

Thus, it cannot be said that Seki disclose the feature "weighting and averaging pilot signals using a plurality of weight sequences to obtain a plurality of channel estimation values" of claim 78. Furthermore, this features is also not disclosed by Sun.

Further, in Seki, Figure 14 shows a concrete example of the propagation path estimation circuit 7 described in Figure 11, etc. In Figure 11, the code multiplier 301 obtains the data symbol from the received signal, and the code multiplier 302 obtains the pilot symbol from the received signal (see column 14, lines 7-10 of Seki). Thus, the signal inputted into the tentative determining circuit 6 of Figure 14 is one obtained by demodulating (compensating) the data symbols at the first multiplier 4 and diversity combining them at the diversity-combining circuit 5 (please see column 14, lines 11-32 of Seki et al). That is, the signal inputted into the tentative determining circuit 6 of Figure 14 is not a pilot signal. Therefore, in Seki, it cannot be said that it weights and averages pilot signals using the weight factor Wa shown in Figure 14.

Thus, also from this point of view, it cannot be said that Seki discloses the feature "weighting and averaging pilot signals using a plurality of weight sequences to obtain a plurality of channel estimation values" of claim 78. This feature is also not disclosed by Sun.

Therefore, claim 78 is not unpatentable over Seki and Sun, whether viewed singly or in combination.

(b) Regarding the feature "deriving a plurality of demodulated data sequences from a data sequence using said plurality of channel estimation values" of claim 78, the Office Action states that this feature is disclosed in column 4, lines 33-44 and column 14, lines 26-32 and 47-53 of Seki.

Here, as we mentioned above, it seems that the Examiner thinks that the estimated values $\xi 1^{\wedge}$ and $\xi d1^{\wedge}$ of Seki et al correspond to "said plurality of channel estimation values" of claim 78.

However, although the parts that the Examiner points out (column 4, lines 33-44 and column 14, lines 26-32 and 47-53 of Seki) refer to the estimated value $\xi 1^{\wedge}$, there is no description regarding the estimated value $\xi d1^{\wedge}$ in those parts.

Thus, it cannot be said that column 4, lines 33-44 and column 14, lines 26-32 and 47-53 of Seki disclose the feature "deriving a plurality of demodulated data sequences from a data sequence using said plurality of channel estimation values" of claim 78. This feature is also not disclosed by Sun.

Therefore, also from this point of view, claim 78 is not unpatentable over Seki and Sun, either singly or in combination.

(c) Regarding the feature "selecting one output data sequence by making judgment of reliability of said plurality of demodulated data" of claim 78, the Examiner states that although Seki do not explicitly disclose this feature, Sun (Figure 3, column 4, lines 35-54, column 5, lines 23-27, 35-40 and 55-67, and column 6, lines 1-7) discloses this feature, and therefore claim 78 is obvious over Seki and Sun.

Here, it seems that the Examiner thinks that the four output data from the demodulators 42 shown in Figure 3 of Sun correspond to "said plurality of demodulated data" of claim 78.

However, it can be understood from Figure 3 and column 5, lines 48-53 of Sun that the four output data from the demodulators 42 are eventually summed (combined) at the summer 70.

Therefore, it cannot be said that Sun conducts the process that "selects one output data sequence by making judgment of reliability of said plurality of demodulated data". Thus, neither

Sun nor Seki et al discloses the feature "selecting one output data sequence by making judgment of reliability of said plurality of demodulated data" of claim 78.

Therefore, also from this point of view, claim 78 is not unpatentable over Seki and Sun, either singly or in combination.

Regarding Claim 62, as explained above, claim 78 is not obvious over Seki et al and Sun. The same explanation can be applied to claim 62.

In the event that the Examiner finds remaining impediment to a prompt allowance of this application that may be clarified through a telephone interview, the Examiner is requested to contact the undersigned attorney.

Dated this 13th day of August, 2007.

Respectfully submitted,

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